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# United States Department of Agriculture,

BUREAU OF MARKETS.

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## DISTRIBUTION AND UTILIZATION OF THE GARDEN SURPLUS.

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### CONSERVE THE LARGE CROP OF PERISHABLES.

In response to the national call of 1917 to assist in food production the number of gardens has been increased all over the country, and the total acreage of formerly unused land thus brought into production is far greater than is generally supposed. People who have had little or no gardening experience are endeavoring to supply their own vegetable needs, and in many cases the production of these gardens will exceed greatly the consuming capacity of the families working them. These surplus food products should be conserved in the home and in the community for future use or be distributed in near-by consuming centers. The country can not afford to let these excess supplies be wasted, and unless the growers can dispose of their surplus products this season at a price that will repay at least the actual cost of production it is doubtful whether they will plant as liberally another season.

That numerous small cities and large towns are producing potatoes, beans, onions, cabbage, turnips, beets, and other vegetables largely in excess of the present needs of the growers, is indicated by inquiries addressed to the Bureau of Markets from various sections of



the country. Since the purpose of the desired increased production of vegetables was the increase in their use, that more of the grain and meat supply might be released for the use of the military forces and the allies of this country, patriotic duty does not end with mere production. The foodstuffs must be preserved or stored for local use, and the surplus must be conserved with a view to eliminating as much waste as possible. Suggestions to these ends are given in the following pages:

### CANNING AND DRYING FOR WINTER USE.

In addition to preservation of fruits and vegetables by home canning and drying,<sup>1</sup> which is one of the most practical services that women can render at this time, there are community canning and drying centers where the work is done on a larger scale. In several localities arrangements have been made with the local educational authorities to use the domestic-science equipment in the schools for giving demonstrations in canning and drying and for the actual canning and drying of surplus products by growers in the vicinity. This work generally is done under the direction of trained domestic-science teachers.

While the schools represent perhaps the most logical place for this work when it is conducted at a center, and necessitate the least expenditure of funds for equipment, some localities have gone to the expense of providing other community buildings or rooms. In some instances these are owned privately by one individual or by a group of people, while in other places the municipality either wholly or in part finances the undertakings. Good business management is essential for the success of these public undertakings. Experience has proved that the best policy is for such establishments to be operated on a self-supporting basis, charging a nominal fee for the service rendered.

Where canning or drying establishments already are in existence, their officials sometimes have purchased garden surpluses, large or small, within a specified radius, and paid for them in cash or in canned or dried goods. In other instances growers have taken produce to the factory to be canned or dried and paid a fixed price per can or pound for the service rendered. In cities and towns where commercial canning and drying plants exist every effort should be made to utilize them as extensively as practicable. As a rule, it is possible for the canning factory to can vegetables at less cost than

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<sup>1</sup> See the following free publications of the Department of Agriculture: Farmers' Bulletin 839, "Home Canning by the One-Period Cold-Pack Method"; Farmers' Bulletin 853, "Home Canning of Fruits and Vegetables"; Farmers' Bulletin 841, "Drying Fruits and Vegetables in the Home."



it can be done at home; and if the management is willing to render service to the individual, then the people should be informed and urged to take their products to the factory. Activities to stimulate such use of the factories may be undertaken not only by their officials but by local organizations as well.

The amount of various articles of food consumed varies according to the desires of the individual family. The housekeeper usually can foresee the quantities of canned food that her family will use. It is estimated by the Department of Agriculture that for a family of five, including two adults and three children under 12 years of age, under ordinary living conditions, the following quantities of vegetables and canned fruits should be stored to provide generously for the family for each month of the season:

One bushel of Irish potatoes.

One-half bushel of other root vegetables.

Twenty to twenty-five quart cans of other vegetables.

Fifteen to twenty quart cans of fruit and preserves.

It has been found that one-fourth quart of dried string beans allowed to soak overnight is equivalent to 1 quart of canned string beans. This ratio of 1 to 4 may be used to represent grossly the relative bulk of the dried green vegetables and the fresh or canned. Dried fruits and vegetables may be stored as substitutes for canned goods according to their proportionate food value.

#### STORING FOR WINTER USE OR SALE.

It now appears that there will be a greater production of potatoes and other vegetables that are not adapted to canning and drying than many local markets will be able to handle to advantage, at least during the time of harvest. Growers should store such surplus products either for winter use at home or for gradual or later sale on the markets, while purchasers might find it advantageous to buy the necessary quantity for the year during the season of harvest if adequate storage facilities are available.

If there is an overlapping of seasons, both growers and purchasers should use liberally day by day the vegetables that can not be stored, so that the less perishable root crops can be held for later disposition or use. Food products for home storage should be selected carefully to make sure that they are in a firm condition when they are stored.

Space in the cellar that is to be used for storing vegetables should be as far from the heating plant as possible and inclosed to keep out the warm air.<sup>1</sup> Preferably there should be an outside window in the storage space that can be used to let in cold air at night or at

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<sup>1</sup> See free Farmers' Bulletin on Home Storage of Vegetables, No. 879.



other times for the purpose of keeping down the temperature. Sound, dry vegetables can be kept in this way in good condition for winter use. For more specific storage information relative to the various crops it would be advisable to consult the State agricultural college.

### MARKETING THE SURPLUS.

To carry out as far as possible the original purpose of greater food production, it should be the duty of each gardener to develop some plan whereby the vegetables not needed for daily use and not held for the winter will not be wasted. This can be done in various ways, depending upon the quantity of the surplus and the existing local conditions.

Home gardeners, as a rule, have had practically no experience in marketing, and therefore know very little about the necessary preparation of the products for sale. If the vegetables are not reasonably well sorted, graded, and packed in suitable containers, they will not have so good an opportunity for sale on the average public market. Like professional gardeners, home gardeners who aim to sell their surplus products soon will be forced to realize that well-graded and well-packed goods usually command prices that more than pay for the extra work. Too much emphasis can not be given to the importance of the careful preparation of the garden surplus for sale, no matter how it is to be marketed.

### VARIOUS METHODS OF SALE.

Probably the most usual way of disposing of the home garden surplus is to sell or exchange with neighbors. Another simple method is the use of a notice or bulletin board that can be read from the street or road.

Community publicity may be given to foodstuffs for sale by establishing a large centrally-located bulletin board for posting lists of products, together with the quantities for sale, the time when they will be available, and the names of the people offering them. The same or another board may be used by consumers who list the products they will want on or near specified dates.

The newspapers furnish another method of advertising garden surplus, particularly when existing in considerable quantity. A paper in one city has agreed to devote space in its columns every day to publishing information concerning the kinds of garden products that are plentiful and the places where they can be secured. Any publicity that will give information as to the location and needs of purchasers and of a near-by supply is an effort in the right direction.

In many instances growers may be able to sell to the local grocers.



It is realized that in some cities retailers often are able to secure a more regular supply of vegetables from the wholesalers, who sell the produce that has been shipped in; but in many cities and towns dealers already have adopted the policy of buying home-grown products and in this way are doing their part to relieve the demand on transportation facilities. In some places the retailers have agreed to buy this winter's supply of potatoes from the local producers instead of having them shipped in as they generally have done heretofore.

When the produce is sufficient in quantity and is well graded and packed, it is always possible to sell or consign to any local wholesale and commission merchant who may be accessible.

If there is a centrally located public market where selling space can be secured for a nominal daily charge, this will provide one of the best ways of marketing the home garden surpluses. Where the quantity of one person's products would not warrant taking the time necessary to sell on the market, a number of gardeners might find it advisable to employ jointly one of their number or some regular market dealer to sell their products for them.

In order to facilitate the sale of the anticipated large supply of fresh garden vegetables several localities have taken steps to have community or neighborhood curb markets established in the smaller shopping centers to be used on certain days of the week. The success of such markets will depend on the regularity of the supply furnished by the gardeners and the measure of support given by the consumers. A responsible person should be put in charge with authority to enforce the necessary rules and regulations relative to hours, weights, and measures. Some cities are insisting on long market hours. The result is an inactive, long-drawn-out market instead of a busy center where the producers can sell out quickly. From 6.30 or 7 a. m. to 10 or 11 a. m. are good hours for retail public markets, with a possible extension of the closing hour on Saturday.

In localities where large excess of production is probable, municipalities should concern themselves in its proper utilization, and take the initial steps toward establishing a market if public market facilities are not available. When it is certain that there is sufficient need, the city authorities should give most careful consideration to the factors that enter into every public-market undertaking.<sup>1</sup>

The question of location of public markets is of importance, because it has been found that many markets have failed through being improperly situated. A retail market should be centrally located in or as near as possible to the main shopping section where street car

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<sup>1</sup> Yearbook (1914) Separate 636: "Retail Public Markets." U. S. Department of Agriculture.



facilities are good. On such a site the public market would be available to the greatest possible number of people.

Good business management is essential for the success of markets. The lack of it has been detrimental to their development in general. It is desirable to have a person in charge of a public market who has a general knowledge of marketing work and who is familiar with local conditions. Such a person should be given the power to enforce all rules and regulations for the proper conduct of the market, and should furnish to the press timely information regarding the volume and prices of various products on the market.

These factors, together with such other regulatory measures as the local conditions may make necessary, should be included in the ordinance which provides for the establishment and maintenance of the market. Cities contemplating public-market undertakings can obtain suggestions for a comprehensive ordinance and advisory aid in the marketing problems from the Bureau of Markets, United States Department of Agriculture, Washington, D. C.

#### ORGANIZED AID IN MARKETING.

Many of the organizations that joined in the campaign to increase production have aided consistently in plans for disposing of the surplus. Boys' and girls' clubs, women's organizations, and business men's associations are giving aid in many localities.

Through the aid of the boys' and girls' clubs, or similar organizations, a house-to-house canvass of all the gardens in the city may be made, in order to determine in advance where there will be a surplus, the kind and the amount.

The results of this canvass, particularly the information relative to the products estimated for sale, should be compiled according to districts and posted on bulletin boards, published in the local papers, and otherwise distributed among the consumers. The boys and girls can be of further assistance in conducting a sort of information exchange for the purpose of bringing buyers and sellers together.

Children have an active part in the cultivation of the home, school, and vacant-lot gardens in many localities. In some cities this has been of sufficient importance to warrant the setting aside of special sections of the public markets for the sale of boys' and girls' garden products. Where no municipal market existed, interested persons have donated the use of vacant lots, or the children have obtained permission to use the school yard in which to display their garden products for sale.

Girls' canning clubs are well organized in many States. The members are doing such good work that the marketing of their



products has become a problem.<sup>1</sup> One group of a boys' organization has undertaken the spraying of the gardens throughout the city, the only charge being the cost of the materials used. The possibilities of service for boys and girls at this time are many. They are limited only by the degree of individual and group initiative.

Women's organizations have rendered assistance in some places by providing training in canning and drying. An organization in a city of the Middle West, for example, arranged for a week's course of lectures for three hours each day to be given women in various parts of the city rather than at one center. A trained domestic-science teacher was secured for the purpose by the organization through the cooperation of the home economics extension department of the State agricultural college. This week's training was followed in various districts of the city with practical demonstration work by professionally trained workers, assisted by trained volunteer workers and local organizations.

In one locality a community cannery recently has been established by a women's conservation committee. A special committee has charge of the workshop, which is on the ground floor of a large office building, within one block of a wholesale market. The use of the building was secured free of charge and the equipment was donated by a member of the organization. A superintendent has been employed for three months and his salary is paid by the women's organization. The work will be done by members who have agreed to work on certain days and who will be paid for their services in canned goods. The workshop committee may be called upon to help in case of emergency.

For obtaining supplies for canning, one member of the committee acts as purchasing agent and six stations have been established in the county where garden truck may be bought. Products either will be bought outright with funds of the association at a certain specified per cent below the wholesale market price in the city or they will be canned for the owners at a small cost. Orders already have been received for 3,500 cans of goods, and the first day the establishment was in operation 275 cans were filled. In another city, somewhat smaller in size, a group of young women have organized and equipped a canning establishment. Their plan is to buy the products outright from the producers and to sell the canned goods at low prices.

The final results of these plans can not yet be known, but possibly other communities may find it advisable to try similar methods.

In nearly all cities and larger towns the business men are organized to handle matters that relate to the commercial life of the

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<sup>1</sup> Markets Doc. 5, The marketing of canning club products. U. S. Department of Agriculture.



municipalities. The problem of greater production of foodstuffs has been deemed of sufficient importance in many places to justify the attention of a special committee of representative business men. In many cases there seems to be the need of a committee to superintend the marketing of the surplus from the new gardens.

A committee of business men could act in cooperation with the women's clubs to determine the true state of local conditions and to devise some plan whereby improvements can be brought about. For example, after an investigation, the business men of one western city decided that community drying plants were needed, so they loaned the necessary funds to establish several. These plants cost about \$200 each and were so located as to serve best the needs of the greatest number of people. A small charge is made for the drying service to cover the cost of operation and to pay off the loan gradually.

In other places where the business men are not financing such community enterprises themselves they are helping the municipality to finance and manage them. One eastern city has appropriated \$1,500 to be used, together with a similar sum raised by a business men's organization, for the establishment of a drying plant.

At one time another western city faced rather strained relations between the growers and the dealers, largely due to a misunderstanding, which was removed in the following manner: The business men secured a vacant warehouse located on the railroad and placed a competent produce man in charge. The farmers delivered their products to this warehouse and the local dealers secured their daily supply from there, paying the market price. The surplus not needed locally was properly graded and packed by the man in charge of the warehouse and shipped in carload lots to the most favorable market. All accounts were audited regularly by a committee, composed of an equal number of growers and dealers. Not only has this plan greatly improved the marketing methods in that district, but it has created a better feeling between producer and dealer.

The city growers who have had practically no marketing experience usually are not organized to look after their own interests. This need suggests a service that the business organizations can well render, particularly in the shipping out of the surplus products.

In certain localities having an unusually large surplus production of perishables by amateurs, a committee of business men might secure the services of a competent person, preferably an established produce dealer, who has adequate warehouse and shipping facilities. Possibly arrangements could be made with such a dealer to act as a general shipping agent for the surplus garden products that might be turned over to him for that purpose. It would be necessary for the growers to report in advance the kinds and estimated quantities of vegetables



they want the agent to handle for them and the probable date of shipment. A supply of suitable containers for transporting the goods reported then could be secured by the shipper, who could give public notice when ready to load a car. He should issue a receipt for each lot of products, pooling those of the same nature. His further duties would be to grade, pack, load, and sell these vegetables in the most suitable market. Each grower would share in the net returns in proportion to the relative amount and value of his shipment.

The agent's compensation for his services should be agreed upon in advance, and ought to be a part of the charges against the total shipment and apportioned among the various growers according to the relative amounts of their shipments. A committee of the producers and the business men should review the returns from time to time in order to see that a proper accounting is made to the various growers by the shipping agent. Such a periodical inspection of accounts would remove any suspicion on the part of the producers that they had not been dealt with fairly. This plan is not feasible except when a large volume of produce is to be marketed.

In a county in one of the Middle Western States where there are indications of a surplus of potatoes, the county conservation committee is cooperating with a business men's organization of the county seat and they plan to act in conjunction with the Federation of Commercial Clubs in conducting a market news service and in placing information regarding market conditions in the various cities at the disposal of local shippers. The county conservation committee is to furnish figures showing the quantities of potatoes to be marketed from the different parts of the county. In this way local shippers will be encouraged to assemble carload lots by being informed as to the best markets.

The merchants as individuals can render further service by having store and window demonstrations of the different ways of canning and drying vegetables. Likewise much valuable and timely information can be given through their regular advertisements in the newspapers and through circulars and handbills.

In a few localities, the gardeners who anticipated the difficulties they would have in producing and marketing their products have been able, through cooperative organization, to meet their problems efficiently. Through this organization they have secured first-grade seeds and fertilizers in wholesale quantities and therefore at fair prices. They obtained the advice of the county agricultural agents regarding the best methods of production. Suitable space on the public markets was secured and other arrangements made for the local sale of their products while plans were worked out for the collective shipment of their surplus to other markets when necessary. The help of the local press was enlisted from the beginning and



through valuable publicity the hearty cooperation of the business men and the housewives was secured. But such forms of cooperative organization among the small producers are very rare. It may be too late this year to get the growers together to handle their business problems, but if conditions warrant it a substantial organization should be perfected as soon as possible, for work during another season. Plans for an organization of this kind can be secured from the Bureau of Markets, United States Department of Agriculture.

The numerous organizations and groups of people interested in the problem are striving in almost as many different ways to prevent the waste of the excess crops that many gardens bid fair to yield. It would be worth while for many municipalities to endeavor to coordinate the activities of these different groups in order to prevent unnecessary duplication of effort. If the city provides a committee to help with the disposition of garden products, it will greatly facilitate matters to have on that committee representatives of the organizations that already may be working on the problem.